

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (previously presented) A printing machine for printing a substrate in the form of a sheet or continuous web, said substrate being intended to receive at least one impression, comprising at least one transfer system for conveying the substrate onto an impression cylinder, at least one screen of cylindrical or flat shape equipped with a doctor blade, the screen collaborating with the impression cylinder and intended to print the substrate by screen-printing with an optically variable ink containing pigments that can be orientated by a magnetic field and an unloading system for carrying the substrate away after the printing operation, wherein said impression cylinder comprises at least one magnetic element on its printing surface, said magnetic element being placed at a location corresponding to said impression on said substrate performed by said screen so as to orientate the pigments contained in the optically variable ink and create a varying optical effect in said impression.

2. (previously presented) The printing machine as claimed in claim 1, in which the substrate receives a plurality of impressions arranged in the form of a matrix and wherein the impression cylinder comprises a plurality of magnetic elements arranged in a corresponding matrix form.

3. (previously presented) A printing machine for printing a substrate in the form of a sheet or continuous web, said substrate being intended to receive at least one impression, comprising at least one transfer system for conveying the substrate onto an impression cylinder, at least one screen of cylindrical or flat shape equipped with a doctor blade, the screen collaborating with the impression cylinder and intended to print the substrate by screen-printing with an optically variable ink containing pigments that can be orientated by a magnetic field and an unloading system for carrying the substrate away after the printing operation, wherein the unloading system comprises a cylinder having at least one magnetic element on its surface, said

magnetic element being placed at a location corresponding to said impression on said substrate performed by said screen so as to orientate the pigments contained in the optically variable ink and create a varying optical effect in said impression.

4. (previously presented) The printing machine as claimed in claim 3, in which said cylinder is an unloading cylinder.

5. (previously presented) The printing machine as claimed in claim 3, in which said cylinder is an intermediate cylinder.

6. (previously presented) The printing machine as claimed in claim 1, in which said magnetic element or elements create a magnetic field in a predetermined direction.

7. (original) The printing machine as claimed in claim 6, in which said magnetic element or elements are orientated in a direction parallel and/or perpendicular to the direction of travel of the substrate.

8. (previously presented) A cylinder for printing or transferring a substrate in the form of a sheet or continuous web, said substrate being intended to receive at least one screen-printed impression with an optically variable ink containing pigments that can be orientated by a magnetic field, which cylinder comprises at least one magnetic element on its surface to orientate the pigments of said optically variable ink and create a varying optical effect in said screen-printed impression, and wherein said at least one magnetic element is covered by a sheet of non-magnetic material.

9. (currently amended) The cylinder as claimed in claim 8, wherein said sheet of non-magnetic material is made of aluminum or of stainless steel.

10. (cancelled)

11. (currently amended) A method of screen-printing a substrate in the form of a sheet or web, in which an impression is formed using an optically variable ink containing pigments that can be orientated by a magnetic field, said impression being formed by passing said substrate in contact with an impression cylinder with which there collaborates at least one screen of cylindrical or flat shape equipped with a doctor blade for screen-printing said optically variable ink, wherein said impression is subjected to a magnetic field before it dries so as to orientate said pigments and create a varying optical effect in said screen-printed impression, and wherein said magnetic field needed for orienting said pigments is produced by a cylinder bearing at least one magnetic element on its surface.

12. (original) The printing method as claimed in claim 11, in which the magnetic field orientates the pigments in a predetermined direction.

13. (original) The printing method as claimed in claim 12, in which the pigments are orientated parallel and/or perpendicular to the direction of travel of the substrate.

14. (currently amended) The printing method as claimed in claim 12, in which a first impression is formed on the substrate using the ~~the~~ ink with varying optical effect, said impression is subjected to a first magnetic field orientating the pigments in a first direction, said first impression is dried, a second impression is formed on the first impression using the ~~the~~ ink with varying optical effect, said second impression is subjected to a second magnetic field orientating the pigments in a second direction, and said second impression is dried.

15. (original) The method as claimed in claim 14, in which the first direction and the second direction are different.

16. (original) The method as claimed in claim 11, in which said impression comprises a plurality of individual impressions arranged in matrix form.

17. (cancelled)

18. (previously presented) The cylinder as claimed in claim 8, and which comprises a plurality of magnetic elements arranged in a matrix form.

19. (previously presented) The printing machine as claimed in claim 1, wherein said at least one magnetic element is covered with a sheet of non-magnetic material.

20. (cancelled)

21. (previously presented) The method as claimed in claim 16, wherein a corresponding magnetic field is produced for each of said individual impressions.

22. (previously presented) The printing machine as claimed in claim 3, in which said magnetic element or elements create a magnetic field in a predetermined direction.

23. (previously presented) The printing machine as claimed in claim 22, in which said magnetic element or elements are orientated in a direction parallel and/or perpendicular to the direction of travel of the substrate.

24. (currently amended) The printing machine as claimed in claim 19, wherein said sheet of non-magnetic material is made of aluminum or of stainless steel.

25. (previously presented) The printing machine as claimed in claim 3, wherein said at least one magnetic element is covered by a sheet of non-magnetic material.

26. (currently amended) The printing machine as claimed in claim 25, wherein said sheet of non-magnetic material is made of aluminum or of stainless steel.